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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,481	02/13/2002	Hideyuki Yamaguchi	2271/66770	8767

7590 10/17/2005

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EXAMINER	
COLILLA, DANIEL JAMES	
ART UNIT	PAPER NUMBER
2854	

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/075,481	YAMAGUCHI, HIDEYUKI	
	Examiner	Art Unit	
	Daniel J. Colilla	2854	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,14,16,17 and 19-25* is/are pending in the application.

4a) Of the above claim(s) *2,9 and 10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-8,14,16,17 and 19-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

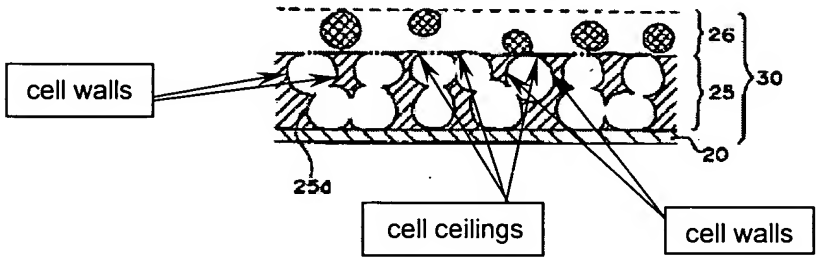
> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7, 8, 14, and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori (JP 10-329445).

With respect to claims 1 and 17, Mori discloses a heat-sensitive stencil sheet having a porous resin layer 25 provided on a thermoplastic resin film 20 (see paragraph [0014] of the machine translation) and a porous fiber layer 26 on the surface of the porous resin layer 25 as shown in Figure 5 of Mori. In the last three lines of paragraph [0081] in the machine translation of Mori, Mori discloses that an adhesive was applied to the porous fiber film in order to laminate the porous resin film to the fiber film. In paragraphs [0101] and [0103] of the machine translation, Mori discloses that $0.8g/m^2$ and $0.4g/m^2$ of adhesive were used in two different examples. These values fall in the range of $0.05g/m^2$ to $1.5\ g/m^2$ as recited in claim 1. In paragraph [0010], in the last four lines of the machine translation, Mori discloses an adhesive strength between the porous fiber film and the porous resin layer as being 1-10g/25mm. Converting the units of g/mm into N/m it is necessary to convert the mass into a force or weight. Using the acceleration of gravity equal to $9.8m/s^2$, Mori discloses the strength being in the range of .392 N/m- 3.92 N/m which at least partially falls in the range recited in claim 1.

Mori discloses that the porous resin layer includes a multiplicity of walls and ceilings which define cells as shown below in the Figure taken from Figure 5 of Mori:

【図5】



The cell ceilings are at the portion bonded to the porous fiber layer 26 by the adhesive.

With respect to claims 7-8, Mori discloses that the porous fiber layer can be $3.5g/m^2$ as mentioned in Example 1 in paragraph [0079], lines 5-7 of the machine translation of Mori.

With respect to claims 14 and 16, Mori discloses pore sizes of 1μm -50μm as mentioned in paragraph [0037] of the machine translation of Mori which covers the range of 5μm -20μm, and with respect to claim 16, at least a portion of the range disclosed by Mori falls between 25μm -60μm.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3 and 20-~~24~~ 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 10-329445) as applied to claims 1 and 17 above, and further in view of Matsuo et al.(US 4,981,746).

With respect to claim 3, the type of adhesive used by Mori is not known to the examiner. However, Matsuo et al. teaches that it is known to use an ionizing radiation-curable type adhesive to bond layers in a heat-sensitive stencil as described in col. 2, lines 6-10 of Matsuo et al. It would have been obvious to combine the teaching of Matsuo et al. with the heat-sensitive stencil sheet disclosed by Mori because the adhesive is of the non-solvent type which has the advantage that there is little impregnation of the solvent into the porous layers giving excellent image quality and image density. Moreover, ionization radiation curing is possible at low temperatures, and therefore the stencil can be produced without causing any deformation of the thermoplastic layer (Matsuo et al., col. 2, lines 18-24).

With respect to claims 20-21, Matsuo et al. states, "as the adhesive curable by ionizing radiation known in the art, there may be included primarily polymers having radical polymerizable double bonds in the structure, for example, relatively lower molecular weight polyester, polyether, acrylic resin, epoxy resin, urethane resin, etc. containing (meth)acrylate and radical polymerizable monomer or polyfunctional monomer etc." (Matsuo et al., col. 5, lines 24-31).

With respect to claim 22, Matsuo et al. teaches a "urethane resin ... containing (meth)acrylate monomer." Thus a urethane acrylate is taught. Furthermore, the presence of monomers will result in some oligomers from the monomers that have reacted.

With respect to claims 23-24, Matsuo et al. teaches an ionizing radiation-curable type adhesive as mentioned above with respect to claim 3. Since this is a product claim, the method of how the product was formed carries no patentable weight in the claim. Thus the side from which the radiation is applied or the type of source of the radiation is not required to be met by the prior art.

With respect to claim 25, Matsuo et al. teaches that the adhesive can have a viscosity of 500-2000 cps (Matsuo et al., col. 6, lines 29-34).

5. Claims 4-5 is rejected under 35 U.S.C. l03(a) as being unpatentable over Mori(JP 10-329445).

With respect to claims 4-5, Mori discloses the claimed stencil sheet except for the amount of the porous resin layer. However, the exact amount of the porous resin layer used would have been obvious to one of ordinary skill in the art through routine experimentation based on the properties of the porous resin layer and other factors of the heat-sensitive stencil sheet.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 10-329445) as applied to claim 1 above, and further in view of Kobayashi (JP 06-135172)

Mori discloses the claimed heat-sensitive stencil sheet except for the porous resin layer being a foamy film. However, Kobayashi teaches a heat-sensitive stencil sheet that includes a foamy layer 1A as a porous layer. It would have been obvious to combine the teaching of Kobayashi with the heat-sensitive stencil sheet disclosed by Mori for the advantage of preventing

the rear sheet of the stencil from becoming stained with ink. *Note: the method of forming the foamy film holds no patentable weight in a product claim.*

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 10-329445) as applied to claim 1 above, and further in view of Tanaka et al. (8-332785).

With respect to claim 19, Figure 5 of Mori shows the pores connected in a depth direction and to a lesser degree in a transverse direction. It would have been obvious to combine the teaching of Tanaka et al. with the heat-sensitive stencil sheet disclosed by Mori for the advantage of a still stencil sheet that can be effectively perforated by a thermal head (see Advantage portion of the English Derwent abstract).

Response to Arguments

8. Applicant's arguments filed 7/27/05 have been fully considered but they are not persuasive of any error in the above rejection.

Mori discloses the language that has been inserted into the independent claims regarding the cell ceilings being boded to the porous fiber layer by the adhesive. The Figure taken from Figure 5 of Mori has been annotated to this teaching as shown in the above rejection of the independent claims.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

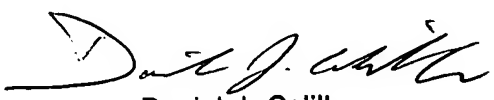
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Colilla whose telephone number is 571-272-2157. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 12, 2005



Daniel J. Colilla
Primary Examiner
Art Unit 2854